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ORIGINAL DEPARTMENT.

COMMUNICATIONS.

HAY FEVER.

BY JAMES EUGENE BELL,
Of Baker's Ferry, Georgia.

In the REPORTER of September 8th, you quote from a paper of Dr. Patton on Hay Fever, in which he denies that the pollen of certain plants is the exciting cause of the disease. He "applied the pollen to the nostrils, the conjunctiva, and scarified spots on the skin, without causing anything more than a passing irritation."

Now we are not informed whether Dr. Patton applied this pollen to the conjunctiva, etc., of hay fever sufferers, and if he did not, the experiment is entirely worthless, since only an occasional individual is subject to the disease; and if the internal and occult cause within the subject's own system be wanting, pollen or other agents could not act as an exciting cause, and the experiment would, therefore, be nugatory.

Hay fever, so called, as witnessed in this section of country, cannot be attributed to the pollen of any of the grasses; but that the pollen of certain flowers does excite the disease, I will attempt to show in this paper.

I have been a sufferer from this disease since 1857, just twenty years, and its annual return has been perfectly true to time. It has made its appearance with such perfect regularity (at no time missing the first day of September more than three days, and, when missing at all, always in advance), that, until I came to know that there were some spots on our planet where I might enjoy immunity, I was disposed to look for a cause in some change in the magnetic or electric condition of the earth while passing through that particular part of her orbit. Experiencing, however, one year of these twenty, entire immunity, dispelled this illusion. That year was 1862. During the month of September of that year, I was in the Confederate camps in front of the Federal works at Cumberland Gap, Tennessee. Our camps were in the forest of that mountainous region, and no cultivated fields were near us. If the immunity I enjoyed that year were due to the particular site of my habitation (which I do not doubt), that region may be made a place of resort to hay fever sufferers, and be to them a blessing.

To find the cause of the disease which gave me so much suffering, and robbed me of the principal part of life's joys at least one-twelfth of my time, was to me a matter of very great importance, and I lost no opportunity to seek it. I knew it was to be found in something that made its appearance coincidently with the disease, and passed away coincidently with its decline. Noticing that my suffering and the flowering of the common hay-weed (*Ambrosia artimisiæfolia*) came hand in hand together—and that when its flowering was over, and the pollen ceased drifting from its numerous little flowers, my trouble also abated, I concluded that the cause was to be found in the flowers of this weed; and repeated experiments and subsequent experience have convinced me that its pollen is the prime, if not the sole, factor in the causation.

This weed is one of the most abundant that infests our cultivated fields. It springs up after

the harvesting of our wheat, oats, etc., and becomes as thick as the wheat itself had been, and grows along fence rows, roadsides, and everywhere it can escape the hoe and plow, by thousands. Its flowers, beginning to open about the first of September, are in long terminal racemes, and its barren ones are especially numerous, and afford a sulphur-like pollen in the most wonderful profusion. This pollen being very light and fine, is easily wafted about by the wind, and is floating everywhere in the atmosphere in myriad numbers during the whole period of the plant's flowering.

For a time it was to me a question whether the pollen caused the trouble by its direct mechanical effect upon the mucous membrane, or by carrying along with it a volatile oil, but I am convinced now that the latter is true. As confirmatory of this view, and as corroborative of the ground taken in this paper, that the pollen of the weed above referred to does act as an exciting cause of the disease under consideration, I will state the following facts:—

Three years ago I conceived the idea of bracing my system against the effects of this pollen by taking it internally, hoping thereby to induce a kind of tolerance to the poison, in the same manner as workmen in arsenic factories are said to protect themselves against the poisonous fumes by taking large doses of the drug internally; in short, becoming arsenic-eaters. I accordingly prepared a saturated tincture of the open flowers of this weed, pollen included, and commenced to take it in teaspoonful doses every two or three hours. I soon found my doses too large, my symptoms all aggravated, and the same kind of irritation which I was striving to relieve in the eyes, lungs etc., set up in the œsophagus, stomach, etc. I desisted from its use, but the next year resorted to it again, a short time before the attack, in much smaller doses, and with some, but not as much, benefit as I had hoped for. I am still of the opinion, however, that under a fair trial, commenced at least one month before attack, this may yet prove a valuable preventive against this form of hay fever.

Months after my trouble was over, with no vestige whatever of the disease remaining, I have, by way of experiment, applied this tincture to the conjunctiva and Schneiderian, with the effect every time of inducing the identical symptoms I had so often felt before, and which, once felt, cannot be forgotten. These symptoms were, of course, soon gone as a "passing irritation," but the effect of the same quantity of tincture capsicum would have been more "passing." The irritation was not continually kept up, because the irritant was not continually reapplied, as is true in regard to hay fever sufferers.

Even if we have ascertained beyond question that the volatile oil of the open flowers of hog-weed, called also rag-weed and carrot-weed (*ambrosia artimisiæfolia* if I am correct as to its botanical name), is the exciting cause of this form of the disease under consideration, we remain still in the dark as to the true cause, or rather, as to what the disease itself is. It may be found in some diseased condition of the nervous centers, or in the sympathetic system, but more probably the error lies in the periphery of the nerves themselves on the affected mucous membranes. Why one suffers and hundreds do not is the question. A solution of this problem may also solve the riddle of a remedy, or, at least, show no real remedy to be possible.

The idiosyncracy of medical writers is a verbal subterfuge, explaining nothing, and yet in the present state of our knowledge we have nothing better to offer. It is simply saying that one is always made sick in the same manner by exposure to certain influences, while hundreds similarly exposed remain unharmed. The few always suffer, the many always escape.

Certain persons are seriously affected with asthma by inhaling the dust of ipecacuanha, and their number is far greater in proportion to the whole number exposed than that of hay fever sufferers; for whatever the cause of the latter may be, every one living in the same community is exposed to it at the same time. If the dust of ipecacuanha were floating as thick in the atmosphere as this weed's pollen is during the month of September, we would see more cases of that form of asthma than we now see of hay fever, and yet, those who are so seriously affected by this pollen are unharmed by ipecac., and *vice versa*.

Symptoms.—Hay fever is a misnomer, for the affection is not a fever; and hay-asthma is a misnomer, for it is not a true asthma. September cold would suit this form of the disease better, as the old name, "nose cold," suited that form. The most prominent, and the most persistent symptom may be explained in one word—*itching*. This itching first attacks the

nostrils, and rapidly passing upward it enters the lachrymal duct, proceeds to the eyes, and spreads over the conjunctivæ, both palpebral and ocular, being peculiarly persistent within the internal canthus. Now passing backward, over the posterior nares, it attacks the soft palate, and uvula, reaches the pharynx, and invades the Eustachian tube, and extends toward the middle ear; thence downward to the epiglottis, entering the larynx and trachea; and finally, reaches the remotest ramifications of the bronchi, confining itself all the while to the surface of the mucous membrane. Thus, every mucous membrane exposed to the action of the atmosphere suffers, excepting that on the lips and the inside of the mouth. Why these parts escape is probably due to their less sensitive nature, and also to the fact that they are constantly bathed in saliva and washed by drinks, etc.

After the irritation extends to the larynx and bronchi (which is often several days after the attack), cough becomes at times quite troublesome. This disposition to cough, when closely analyzed, will be found to proceed from a sensation of itching, and the act of coughing is an effort of nature to relieve that sensation. The cough, however, instead of affording relief, aggravates the symptoms and induces a still greater desire to cough, soon followed by congestion of the mucous membrane and wheezing, simulating true asthma.

The wheezing of this affection is not caused by a spasmodic narrowing of the small air tubes, as affirmed of true asthma, but is due to a thickening of the mucous membrane of those tubes, encroaching upon their calibre. The relief which finally follows a free secretion and expectoration of mucus, would, it seems, argue a similar condition even in asthma proper.

The sense of itching, when in the nostrils, gives rise to sneezing, and a constant desire on the part of the patient to rub the parts, and to blow away the offending matter, while a free secretion of limpid, briny fluid pours therefrom, having, at times, mixed with it flocculi of tough mucus, resembling the membranous matter of croup. Sometimes this fibrinous exudation comes off in distinct patches as large as the thumb-nail, and of the thickness of tissue paper. It is of a yellowish color, very tough, and insoluble in cold water. Sometimes shreds of the same character form on the conjunctivæ, very difficult to detach, and causing much annoyance. The secretion from the larynx, bronchi, etc., is no doubt similar, if not identical in character, but being detached and coughed up as fast as formed, and being mixed so largely with the normal secretion of those parts, time is not allowed for it to change its color, nor to assume the tough nature of the other.

Before dismissing the subject of symptoms, it is proper to state, that although all these mucous membranes are subject to suffering during an attack of this disease, it is rare that all suffer at the same time. The conjunctivæ may be severely affected for hours at a time, while the Schneiderian, throat, etc., are at rest; and again, the conjunctivæ may be at ease while the nostrils are the seat of much distress. Sometimes cough is the only trouble complained of; and it occasionally happens that the disease spares all the parts at the same time, the patient enjoying a season of comfort for twenty-four hours, or even longer, with no symptom to annoy him.

Treatment.—All that is known of the treatment of hay fever, may be told in a few words. This must remain the case so long as we are in ignorance as to the true nature of the disease. The remedies we have to offer are at best but palliatives. It is true that the removal of the cause from the patient, or the patient out of the reach of the cause, would be as good as curative, but the former is not possible, and the latter is practicable for but few patients. We must, then, give the patient the benefit of the best palliatives at our command, while he remains at home.

Of paramount importance is the employment of such means and agents as will mitigate the intolerable itching, which, as above shown, is by far the most distressing symptom in this form of hay fever. The phenomenon of itching, whether of skin or mucous membrane, is most probably due to a contraction or lessening of the calibre of the minute capillaries, and the consequent laborious circulation of blood through them, while the vessels of larger size communicating therewith are in a state of active congestion. Perhaps the same amount of blood passes through them in a given time, as should in a normal condition of the parts, but on account of this narrowed state, far more rapidly. Now, this explanation may not be strictly true; but it is certain that there is some error in the capillary circulation, for when a

diffused hyperæmia and equalized circulation is induced by chafing or rubbing the parts, the sensation of itching is for a time relieved.

The conjunctiva itches in this disease most intolerably, and the patient, true to the instincts of nature, resorts to rubbing, but the only relief experienced is during the process, for he immediately afterward finds the symptoms aggravated. He cannot scratch the conjunctiva as he would the skin, hence he rubs it through the lids, and these being so smooth and well lubricated, no effect is produced until a pressure is resorted to, which extends to the parts beneath the surface, which, not being at fault, resent such rough handling with congestion, adding to the distress. In the same manner, much rubbing at and blowing the nasal passages adds to, rather than mitigates, the suffering.

What we want, then, is a gentle, diffusible stimulant, that will act directly on the surfaces affected, and leave behind but an evanescent irritation; something that will equalize the capillary circulation without setting up congestion or inflammation. For this purpose, cold water, warm water, a solution of common salt, a weak alkaline solution, or mild soap suds, will often prove grateful applications to the conjunctiva. Quinine snuffed up the nostrils, recommended by some, is too irritating. I have found salicylic acid much better. Even this has too much tendency to induce sneezing. Just here, I cannot recommend too highly that hay fever sufferers be instructed to resist to the utmost limits in their power the desire to rub the affected parts within reach; to suppress a sneeze as far as practicable; and to refrain from coughing as long as possible. Rubbing or scratching adds to the irritation, and increases tenfold the desire to continue it; and the first explosive cough, easiest to resist, sets up at once, like a flame, a degree of irritation which renders the patient unequal to the task of preventing its repetition, continued with much distress until the final relief by free expectoration. It is true, that the first cough cannot always be put down, but it is also frequently true, that a persistent effort at resisting the desire will, in a short time, allay the irritation entirely. These remarks are not applicable to the advanced stage of the disease, especially where there has been frequent paroxysms of coughing, in which the patient has allowed nature to have full sway; for in such cases a subacute form of bronchitis exists, with more or less copious secretion; cough being, of course, necessary to expectoration.

The remedy which I have found superior to any other to allay the itching of all the parts, and to quiet the cough, is the oil of peppermint. This, whether applied in substance or in vapor, is strictly a local remedy. This oil is a local anæsthetic and gentle stimulant. Its anæsthetic properties are proved by its great value as a topical application in neuralgia, toothache, etc. It is very volatile, and its vapor can be made to penetrate to the smallest air tube, and to reach every other portion of the affected mucous membrane without the aid of an atomizer. All the instrument required is a wide-mouth vial, partly filled with the oil. By partially covering the mouth of the vial with his lips, and making forcible inspiration, the patient can cause the air to pass over the surface of the oil and arise to his lungs charged with its vapor, the pharynx getting its benefits at the same time. By applying the nostrils to the vial in a similar manner, the Schneiderian may be impressed likewise, and when it is desirable to apply the vapor to the conjunctiva, it is readily accomplished by blowing downward into the vial, and directing the rebounding or upward current of air to the eyes. Whenever the vapor of this oil, or the oil itself is applied, a feeling of cooling warmth succeeds, soon followed by a soothing sensation of relief. It has oftentimes the effect of suppressing a sneeze at once, of superceding the necessity of rubbing or chafing the parts, and of quieting cough upon first warning, which would otherwise go on to expectoration.

Strychnine will sometimes prove quite valuable in hay fever, by in some way bracing the system against the effects of the poison; but to get its full benefit it should be resorted to some time before the expected attack.

In conclusion I will state that in the above imperfect sketch I have been true to the disease as observed in my own person, and that of others in my practice. The cases answering to the details herein given are, happily, not numerous. Those persons who have annual visitations of asthma during the early summer are not placed upon this list. I have not been able to divine the exciting cause in those cases, but have preferred to refer it to the pollen of some of the grasses. In such cases, difficulty

of breathing and true asthmatic distress stand out much more prominently than in the hay fever under consideration.

If what is herein written will cause further investigation in the line I have pointed at, and some more light to shine on this mysterious affection, and place other and better remedies at the disposal of this sorely afflicted but unpitied class of sufferers, I will have my reward.

A CASE OF BELL'S PARALYSIS.

BY ISAAC OTT, M. D.,

Of Easton, Pennsylvania.

Mr. A., whilst fishing, and sleeping on the ground, noticed on the following day that he was unable to spit properly; that his eye felt uncomfortable, the lower lid not closing over the eyeball; that the right side of the face was paralyzed, and mastication was difficult. On July 13th, I saw the case and found that the right side of the face was completely paralyzed, the upper lid only moving. I applied the faradic current of a Dubois-Reymond apparatus, but was unable to obtain any muscular contraction. Then a galvanic current generated by fifteen carbon-zinc cells was passed in an ascending direction. Opening and closing of this current brought out strong muscular contractions. The anode was placed over the exit of the nerve at the stylo-mastoid foramen and the cathode on the facial muscles. After the use of the ascending galvanic current, I found that the previous inactive faradic current became active. The same phenomenon was noticed in several of the electrical seances. Galvanism and faradism every other day, combined with the internal use of pot. iodid., hyd. bichlorid. and strychnia sulph., was the continuous treatment.

July 29th. Power over the right lower eyelid returned first; can approximate the orbicularis oris, but is unable to whistle; slight quivering of the buccinator and levator anguli oris.

August 17th. There was progressive increase of power over the muscles up to date. Then the plan suggested by Dr. Detmold, and recently advocated by Dr. Van Bibber, was tried in conjunction with the previous treatment; that is, a blunt hook was inserted into the right angle of the mouth and fastened to the ear by an elastic band. Full recovery ensued in the course of a month.

The question arises here, where was the seat of the lesion?

As is known, the facial nerve arises from the floor of the fourth ventricle, and the restiform body enters the internal auditory meatus and aqueduct of Fallopius, where the geniculate ganglion is found, and the petrosal nerves and chorda tympani are given off. The larger petrosal nerve supplies the levator palati and uvular muscles, the smaller petrosal going to the tensor tympani. The chorda tympani administers to the sense of taste, by erecting the papillæ and by vaso-motor action; it is not a sensory nerve.

The posterior auricular nerve arises from the facial at its exit from the stylo-mastoid foramen, and supplies the retrahens aurem and the occipito-frontalis muscle. Duval states that within the brain substance the course of the facial to its nucleus is very tortuous, going in five different directions. Erb has called attention to the fact that paralysis of the retrahens aurem shows that the disease is external to the stylo-mastoid foramen. If the sense of taste is weakened, then the seat of lesion is above the branching off of the chorda tympani. If the palate muscles are paralyzed, then the disease must be at the geniculate ganglion, or toward the origin of the facial nerve. Now in this case there was no paralysis of the muscles of the palate, hence the lesion is below the geniculate ganglion. There was no loss of taste or impairment of it, hence the disease is not in the aqueduct of Fallopius. Now the retrahens aurem was paralyzed, hence the lesion must be outside the stylo-mastoid foramen, and quite probably (having been induced by cold) is rheumatic in origin. The exaggerated activity of the auditory sense seen in some cases is due, according to Brown-Sequard, to vaso-motor spasm producing hyperæsthesia. To explain why the ascending galvanic current made the muscles in the same sitting responsive to the faradic current, when previously inactive, the observation of Heidenhain suffices, that is, that an ascending constant current rejuvenates exhausted muscles.

The decision, if the disease is within the aqueductus Fallopii, or external, is highly important in the prognosis, as within this canal the recovery is difficult.

OPIUM POISONING TREATED WITH SULPHATE OF ATROPIA.

BY CHARLES M. MORFIT, M.D.,
Of Baltimore, Md.

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On August 30th, 10.40 P.M., I was called to see ———, who, about thirty minutes before, had swallowed half an ounce of laudanum. An emetic had been given before my arrival, and had acted promptly and well. The patient was a stout, robust person. I found her very drowsy, but she could be aroused, would answer questions rationally, and would recognize the family, although she was affected with hallucinations; the pulse was weak and quick; respiration good, though slightly impeded; pupils very much contracted, so as to be scarcely discernible.

I used emetics, coffee, stimulants, ice to head and nape of neck, and the usual round of remedies, which for a short time seemed to relieve, but only for a very short time; I then injected, hypodermically, five drops sol. sulph. atropiæ (gr.j to f℥j), which acted very slightly upon the pupils. At 2 A.M., the pupils still remaining contracted, violent convulsions supervening, and the face, neck, and extremities becoming turgid, livid, and cold, the pulse 138, respiration 16, and patient in a very critical condition, I called in Dr. J. W. Houck. Upon his arrival we made another trial of rubbing the spine with ice, and used the cold douche to the head. These, for a few moments, semed to slightly arouse the patient, but this reaction soon disappeared. We then gave another injection of the atropia, as before; almost before the needle was withdrawn, the pupils were fully dilated, the respiration somewhat easier, though still slow; the pulse in a few minutes came down to 126, and the temperature was better and more equable. It being still impossible to arouse the patient, we applied the battery, first to the region of the heart, then to the spine, increasing the current gradually to its fullest strength; it seemed to produce no appreciable effect, except a slight twitching of the muscles of the shoulder when applied over the course of the nerves, and thus extended but two or three inches.

I remained with the case, carefully examining from time to time. About 4 A.M. the pulse had fallen to 120; respiration 18, and tolerably regular and easy; the general appearance much better. I did nothing more, and at 4.20 left the patient in deep sleep. I supposed that, as there had been a gradual improvement in all the symptoms for over two hours, it was safe to leave, as my office was but a few doors distant. I ordered the battery to be reapplied should symptoms of exhaustion appear, and a messenger dispatched for myself.

At 7½ A.M. found the patient perfectly conscious. She complained of being unable to stand on account of pains in her back, and no wonder, considering the ice scrubbing she had received.

This I consider an interesting case, from the small quantity of laudanum taken, its violent and complete poisoning effects, so short a time having elapsed since taken, and this, too, notwithstanding the stomach was promptly evacuated, together with the prompt and rapid action of atropia in neutralizing the poisonous effects of opium and its preparations.

It may be urged that the other remedies had their action in the cure. This may be, but I think them of little effect, if any, for they had all been faithfully used, with no good result; but directly the physiological symptoms of the atropia manifested themselves, the alarming condition of the patient began to improve, so much so as to be appreciable to the party at the bedside; besides, at each injection, the symptoms were relieved, the trouble being that I was too cautious in the amount first injected. Another point of some interest is that the exact amount of poison taken and antidote used is known. This patient in a few days was perfectly well and attending to her usual duties.

HOSPITAL REPORTS.

SELECTED TREATMENTS FROM RECENT CLINICS.

Reported for the MEDICAL AND SURGICAL REPORTER.

LEUCORRHŒA.

Saturated solution of chlorate of pot. Used as an injection daily.

Also—

Saturated solution of acetate of lead, used once or twice a week, diluted with equal parts of water.

CLEANLINESS AFTER MENSTRUATION.

No doubt many cases of uterine disease could be prevented by due attention to cleanliness. The retention of clots of blood and secretions after menstruation forms various abnormal conditions of the uterus. Injections, therefore,

of tepid water, with a good bulb syringe, should be used several times a day for a few days.

TONIC FOR CHILDREN.

Professor Wallace considers the elixir of quinine, iron and strychnia, one of the best tonics for children.

CHAFING IN INFANTS.

Perfect cleanliness; never use dried soiled diapers. Common starch (dry), sprinkled in water, may be applied after each passage. A wash may also be used, three times a day, of this kind: Solution of hyposulphite of soda, five grains to the ounce of water, and after drying, anoint with cod-liver oil, which has had added to it a little calomel and calomine.

EXCELLENT DUSTING POWDER FOR CHAFING AND ECZEMA OF VULVA.

℞. Calomel., ℥ss
Calaminæ, ℥iss. M.

Sig.—Apply several times a day.

FUNCTIONAL PALPITATION.

Woman, age 43; palpitation every half-hour for months past.

℞. Tinc. digitalis, gtt.v
Tinc. verat. viridis, gtt.ij
Tinc. aconitæ, gtt.j
Tinc. zingiberis, gtt.xiij. M.

Sig.—One dose, three times a day.

CHRONIC PLEURISY WITH ADHESIONS.

℞. Pot. acet., gr.xv
Pot. iod., gr.v
Syr. tolu.,
Aquæ, āā ℥j. M.

Sig.—One dose, ter die.

Muriate of morphia is said to be less apt to produce abscess than the sulphate in hypodermic use.

DIURETIC IN DROPSY.

℞. Pulv. scillæ,
Pulv. digitalis, āā gr.j
Calomel., gr.ss. M.

Sig.—One dose, twice a day.

PROFESSOR MEIGS' METHOD OF USING IRON.

℞. Ferri redac., gr.ij.

Sig.—One dose, taken shortly after each meal.

If swallowed while the stomach is engaged in the act of digestion, it does not occasion any unpleasant sensations. It will generally cure anæmia in sixteen days.

A FORM TO GIVE OPIUM TO THOSE WITH WHOM IT DISAGREES.

℞. Pulv. opii, gr.j
Pot. carb., gr.x. M.

Sig.—Dissolve in half a wineglassful of water.

CHILBLAINS.

℞. Collodion, ℥vj
Tr. ferri chloridi, ℥ij
Ol. ricini, gtt.v. M.

Sig.—Paint with camel's hair pencil, two or three times a day.

A sure relief, and if applied in the earliest stages it will speedily cure.

TRIPLEX PILL.

℞. Aloës socotrinæ,
Scammon.,
Pil. hydrarg., āā ℥j
Ol. tiglii, gtt.xx
Ol. carui, ℥iss
Tinct. aloes et myrrhæ, fl.℥ij. M.

Ft. pil. No. civ.

EXCELLENT PODOPHYLLIN PILL.

℞. Podophyllin,
Ext. hyoscyami, āā gr.iij
Saponis, gr.ivss
Syrupi simp., gtt.vj. M.

Div. in pil. No. xii.

Medical Societies.

FRANKLIN COUNTY (PA.) MEDICAL SOCIETY.

At a meeting of this Society in October, Dr. Strickler, of Waynesboro, was nominated by Dr. Lane, for President of the Society, and Dr. Johnson M'Lanahan by Dr. Rush Senseny, also for President, to serve during the year 1878. Dr. M'Lanahan was elected.

Drs. Davidson, of Greencastle, and Chritzman, of Welsh Run, were elected Vice-Presidents.

Typhoid Fever.

At a preceding meeting the subject of typhoid fever, and water contamination with materies morbi, as a frequent promoter of this dread disease, was a subject of discussion, in which the members generally joined with interest. It was thought that the pernicious practice of making cesspools out of old wells was a most fruitful promoter of disease, as in this way the stream of water in the well became poisoned with disease germs, and this same water, so poisoned, was conveyed to other wells, by its underground conduit, and then was used as a beverage by the citizens, and thus engendered or created diseases—notably, typhus and typhoid fever.

At this meeting Dr. Lane advanced the argument that water was a frequent promoter of disease, and particularly typhus and typhoid; that is, water for drinking purposes, which had been fouled and poisoned by excrementitious matter from vaults, cesspools, etc.; that in them existed the seeds of these diseases. He cited eminent foreign authorities, Ziemssen, Trousseau and others, to support his theory. At the

meeting last Tuesday, Dr. Chritzman read a well-prepared and most able essay on the same subject, taking adverse grounds to those advanced by Dr. Lane on a former occasion. Dr. M'Lanahan and Dr. Rush Senseny favored the reasoning of Dr. Chritzman, as against the theory of Dr. Lane. They thought that facts would not support the hypotheses of Ziemssen, Trousseau and others; that drinking water, in order to be poisoned with materials of disease, must carry within it the germs of each specific disease, and that in order to do this, there must have existed in the vicinity of such drinking water, the "casus morbi," or in other words, causes of such disease types, from which would emanate the typhus germs or typhoid germs as the case might be. They took the broad ground that typhus, typhoid, *et id genera*, cannot be produced from water, however badly poisoned by excrementitious matter, unless such material carried the true germs from a typhoid or typhus patient. This question engendered an interesting discussion, and rendered the meeting a lively one, more so than for a long time in the past.

The Vaccine Disease.

Dr. Senseny stated that the subject under discussion induced him to present a matter which he had been investigating, which had some points of scientific interest, and which might be well worth discussion and future research. Dr. Senseny stated that for some months the heifers he had been inoculating with virus of the disease vaccina, had most all of them failed to take, or in those which did take, the vesicles which formed around the udder aborted or dried up. It was a strange experience and different from all his past results, as heretofore they had always taken and matured through every stage of the disease. At last he found out the cause. It seems that the heifers have to be washed, lathered and shaved before vaccinating, and then washed very clean around the region of the udder. This his assistant had been careless of, and in addition had been using a very strong and common alkali soap. It appears this alkali acted on the virus, neutralizing and destroying it, and also aided in checking and destroying the growth of the vesicles. It did this effectually. Dr. Senseny therefore reasons from these premises, that if the alkali in this soap was capable of checking the vesicles of vaccina, which is a disease akin to small pox, and rendering the disease harmless by checking and stamping it out at a certain stage of its growth, why might it not possess the same active qualities, this soap or the alkaline principle, when applied to diseases of like character prevailing in the human? The question elicited some discussion and it was thought worthy of scientific research.

Editorial Department.

Periscope.

Chemical Physiology.

Dr. J. Emerson Reynolds has published, in successive numbers of the *Pharmaceutical Journal*, the substance of two lectures which he gave during the present year before the King and Queen's College of Physicians in Ireland, on the Influence of Chemical Constitution on Physiological Activity. The comparative physiological experiment made a few years since by Crum-Brown and Fraser showed that chemical additions to vegetable alkaloids (methyl-derivatives of strychnia, atropia, etc)., are capable of materially altering without destroying the physiological activity of these substances. Dr. Reynolds' lectures have not carried the investigation further in any experimental sense, as we hoped might have been the case, for this field of investigation is one which would probably yield valuable results. He has, however, deduced certain conclusions from a consideration of the whole subject, which he states thus.

"In dealing with several of the cases of physiologically active bodies, I have shown that we can trace out to a certain small extent the probable *rôle* performed by some of the compounds within the organism; but our knowledge of the chemical changes involved in vital processes is as yet too limited to justify us in going far in this direction, I may, however, supplement any observations made under special heads by pointing out here that, if we exclude from consideration those bodies which exert a local corrosive action on the gastro-intestinal surface, and those which seem (like carbon dioxide) to act chiefly by quenching oxidation, the remaining substances which are chemically and physiologically active can directly or indirectly interfere with the production of nerve-force in one or more of at least five different ways:—1. By directly removing oxygen from the blood, and thus interfering with the ordinary processes of oxidation; 2. By uniting with hæmoglobin to form compounds analogous to carbonic-oxide-hæmoglobin, or to Ray Lankester's cyano-hæmoglobin, thus preventing the normal production of oxyhæmoglobin; 3. By combining with effete material and increasing the diffi-

culty of its removal by oxidation or otherwise; 4. By withdrawing from living tissue material essential to its vitality; 5. By chemically combining with living tissue and interfering with the performance of its proper function. In concluding this section, and with it these lectures, permit me to express the hope that the outline I have endeavored to give of some recent work on the borderland between chemistry and physiology may serve to show that the progress of true therapeutics must, in the future, largely depend on the extension of our knowledge of the chemical changes involved in the so-called vital process."

Therapeutical Properties of Phosphate of Soda.

The *British and Foreign Medico-Chirurgical Review* states that Dr. Luton, of Rheims, has written of this salt as a respiratory agent employed in the treatment of asthma and pulmonary phthisis. He relates three cases, one of asthma in an old man, and two of pulmonary phthisis, one in a young man and one in a young woman, in all of whom the phosphate was given with great success. Dr. Luton believes that the common crystallized phosphate of soda acts on the human subject as a phosphorized principle, and that it presents itself to notice as an agent having the properties of phosphorus without any of its dangers, and that as a phosphorous compound it is suitably employed in those diseases where phosphorized substances are required, such as organic debility, marked adynamic conditions, impotence, amenorrhœa, and perhaps progressive locomotor ataxy; as an alkaline body, also, it is applicable in gout, rheumatism, diabetes, biliary calculi, etc. In pulmonary phthisis there are two morbid elements, namely, the functional respiratory disturbance and the organic debility, the one influencing the other; and it is natural to suppose that the phosphate of soda would be efficacious in this disease, either in combating its essential principle or in counteracting some of its acquired results, and in these characters Dr. Luton regards it, and recommends the trial of its properties by others

The Preservation of Subjects for Dissection.

In an editorial in the *Lancet*, the writer says:—

Various expedients have been had recourse to, with more or less success, but an experience of years has enabled anatomists to determine with tolerable precision which modes of preservation offer the best chances of success. In some schools the abdominal viscera have been removed, but this is generally quite unnecessary. The injecting fluids which have stood the test of experience are glycerine, solutions of arsenic, bichloride of mercury, and chloride of zinc. Most teachers give a preference to one or other of these, and preparations differing only in details, such as the method of injection or the precautions against any access of warm air or moisture, are used in nearly all our schools. Arsenical injections, besides being cheap, have the advantage of preventing the growth of mould over the surface. Glycerine acts very well, indeed, but a small quantity of arsenic must be added to it, otherwise the mould is almost always developed. It is, however, comparatively expensive, and this would seem to be the only drawback against its general use. Chloride of zinc has a tendency to loosen and dissolve the areolar tissue between the muscles and other structures, and it undoubtedly bleaches the tissues, so that nitrate of potash in strong solution is required to correct this disadvantage. Bichloride of mercury, when used, should be dissolved in strong spirit; and the subject must, after injection, be kept in an atmosphere of alcoholic vapor, in a hermetically closed tank. This answers as well as any method, as far as the preservation of the body is concerned, but from the evaporation of the spirit, when the subject is exposed for dissection, the skin gets very dry unless particular care be taken.

One important consideration in the choice of a preservative medium is its solubility, for any substance which requires much water for its solution is sure to fail. It is probably from this reason that creasote, carbolic acid, and salicylic acid have not answered the expectations that many had anticipated from their use. By no plan, however, can the brain be preserved *in situ* in a condition for dissection. Fortunately this is a matter of secondary importance, as a supply of brains can be easily procured from the post-mortem rooms of the hospitals. Hydrostatic pressure is now frequently employed in preference to the ordinary method with a syringe, and is a great improvement, for the success of the process is thereby rendered much less dependent on the manual skill and practice of the operator. Subjects prepared with any of these preservative fluids can be readily reinjected with colored paints, as usual, and they have the additional recommendation of being far less likely than recent corpses to lead to serious symptoms from a dissection wound.

The Treatment of Neuralgia.

The following cases and treatment of neuralgia are given by Mr. E. M. Boddy, in the *Medical Times and Gazette*, London:—

Case 1.—John S., aged fifty-five. Patient, a farmer, had been troubled with obstinate recurrent attacks of facial or definite neuralgia, and had tried various remedies, but had obtained no relief. He was in robust health, and there was nothing to be seen or felt on either the upper or lower jaw, and there were no decayed teeth. The attacks would come on violently and without any warning, and the pain was so excruciating that he said it made him "feel mad." After taking the opium and arsenic he fell into a profound sleep, and on awaking the pain had entirely left him. Now, in this case relief was

almost immediately afforded, and no further treatment was necessary, for the attack no doubt depended upon "some obscure irritation of the fifth pair of nerves," and was not caused by the health being out of gear.

Case 2.—Henry H., aged forty, had been suffering, for some weeks previous to my seeing him, from the most excruciating attacks, and there were no carious teeth to account for them. As he was out of health, I treated it as a case of anæmic neuralgia, and so I put him on a course of quinine and iron, which gave him no relief. At last he had such a severe attack that he was like one bereft; but the pain was immediately alleviated by the opium and arsenic, and left him, he said, "like a miracle." I now recommenced the tonic treatment, and he very soon regained his ordinary health. In this case the neuralgia simply resulted from an "obscure irritation of the fifth pair of nerves," accompanied with debility.

Case 3.—Charlotte B., aged eighteen. Patient was what one might term in first-rate health, and, strange to say, had never had the tooth-ache. One evening, without any assignable cause, she was attacked with the most "horrible pain" in the face; had never experienced it before. I administered the opium and arsenic, and the pain at once left her. The next day she had another attack, which immediately succumbed to the remedy.

Case 4.—Annie H., aged twenty-two. Patient had been irregular from puberty, and for the last six years had been subject to facial or definite neuralgia, and no remedy had afforded her the slightest relief. She was a well-formed girl, but was decidedly chlorotic and anæmic. The first dose relieved the pain slightly; the second entirely removed it, for she slept soundly, and there was no vestige of it on awaking. I now treated her general health by administering purgatives and tonics, such as iron and quinine. When I last saw her she had had no recurrence of the neuralgia, the catamenia were regular, and her general health had greatly improved.

These four cases, which I have selected from many others of which I have notes, are quite sufficient to show the efficacy of the combination of opium and arsenic in the treatment of this disease. Three of them are very good specimens of what I call definite neuralgia, and the last was of the same kind, though partly owing its origin to some uterine derangement. There is one very noticeable fact: they all derived marked benefit from the remedy; it also quickly relieved them of an agonizing pain, prevented its return, and no ill consequences resulted; and what is greatly in its favor, the opium promotes rest, which is so necessary, and the sufferer awakes up feeling almost a new being, especially if the pain has been of long continuance.

The form of definite neuralgia which arises from hysteria is also amenable to opium and arsenic; but then it is desirable to give the patient a nervine sedative, such as the bromide of potassium or the tincture of valerian, after the neuralgic pain has subsided. The following is the mixture I always give:—

R.	Liq. arsen.,	ʒss
	Tinct. opii,	ʒiss
	Aquæ,	ad. ʒiij. M.

Sig.—One tablespoonful to be taken when required.

The strength may be increased in very violent cases, but I have generally found the above sufficiently strong.

Inflation of the Urethra as an Aid to Catheterism.

Dr. P. Tytler writes to the *British Medical Journal*:—A. B., sixty years of age, came under notice at the Ardwick and Ancoats Dispensary, three weeks ago, suffering from several perineal fistulæ. I endeavored on two separate occasions to pass a catheter into the bladder, but failed. I attributed the reason of failure to the distortion of the urethra by the contracted cicatricial tissue of the fistulæ. In order to remove this distortion and straighten the passages as much as possible, I injected a solution of carbonate of soda, and then another of tartaric acid, taking care to secure the meatus with the fingers of one hand, and the fistulæ with the tips of the fingers of the other hand. In this way the urethra was strongly distended, and the gas finally forced its way out through the fistulæ. I then reattempted catheterism, and had the satisfaction of passing a No. 3 instrument right into the bladder without any difficulty whatever.

This is the only case I have to offer in support of the method of inflation as an aid to catheterism. The method of inflation is perhaps clumsy; but I have given it, as it was the one used in the case. A Politzer's bag, with a small tube to fit into the urethra, would perhaps be more serviceable. I think inflation might be useful in removing calculus in the urethra, and possibly in some cases of retention of urine, and also to give steadiness and precision to internal urethrotomy.

The Diagnosis of Tubercular Meningitis.

Dr. Reginald Southey writes to the *British Medical Journal*:—

Tubercular meningitis is apt to be misunderstood in the adult, because the symptoms have been indistinctly pronounced, or carelessly observed; but the latter is the more common error. If the entire history of the illness be truthfully elicited, it is usually too significant to admit of wrong interpretation; but toward a correct diagnosis of this, as of every other disease, careful clinical observation is requisite.

The cases which I have in my possession enable me to summarize, as follows, the more ordinary symptoms that mark the invasion of tubercular meningitis in the adult:—

1. Headache is certainly the most invariable symptom; seldom, if ever, absent; never wanting in any case I ever watched:—

2. Vomiting, constipation, and fever are present, attended by no characteristic rash.

3. Peculiarity of temper and conduct, occasional confusion of ideas, and slight transitory delirium, are also symptomatic of this disease.

4. There are general muscular pains, followed first by stiffness, and then by slight paralysis, as shown in the imperfect co-ordination of the muscular movements in tremblings and in twitchings. The muscular pain and stiffness are often first complained of in the nape of the neck, and then in the muscles of the back.

5. Slight epileptiform convulsions are observed, followed by paralysis of motion in the limbs or parts convulsed; this paralysis being most usually of a transitory or temporary kind. Among the paralyses most frequently noticed and characteristic, I may single out those affecting the optic commissure and oculo-motor tracts, causing a slight internal squint, with dilated inactive pupil of one eye, with drooping of the same eyelid, and paralysis of the facial nerve upon one side. The paralysis of the limbs, although usually a hemiplegia, is seldom one that invades the body upon one side in its entirety. Further, its mode of attack is gradual; usually, the arm and leg are affected upon the same side, but the facial muscles are not involved. First there may be inertness of the arm, then of the leg, then complete loss of power; but the arm and leg may be fully extended, and never moved, although pinched and stimulated. Then the right leg may recover and the left arm be implicated, so that an apparent cross paralysis may exist; or the right arm and left leg, or right leg and left arm may be so affected consecutively. The limbs which have been paralyzed, although they may recover some motor power, are seldom afterward well co-ordinated in their movements.

6. Hyperæsthesia of the skin generally appears coincidently with peculiar mental phenomena; as, for instance, conduct obstinate and unaccommodating, and a temper quite altered from that which in health distinguished the individual, a maintained attitude of dogged resistance to whatever he or she is asked to do. Very little nourishment is voluntarily taken. The abdomen becomes retracted, and the aspect of the patient, with half-open eyelids, or some slight paralysis of these, becomes highly diagnostic.

7. Continued drowsiness is observed. The patient shrinks from all disturbance, and shrieks out when roused sufficiently to move or perform voluntary acts. From this drowsiness the step to coma and death is seldom many hours distant.

The history of the case usually records an illness that has endured some two or four weeks, but one which has not attracted much attention until distracting headache, with some delirium at night, has supervened. Two cases I have seen were mistaken for neuralgia and hysteria, one for typhus. If, however, in these later stages, the diagnosis is usually all too certain and assured, we may well ask if, in the earlier stages, the clinical symptoms do not sometimes suffice to indicate the exact situation of the pathological lesions. Approximately, and with some likelihood, I shall answer that they do, but with no positive certainty.

Disinfectants.

Dr. Edwin M. Snow, Superintendent of Health, Providence, R. I., has published the following circular in his department:—

The use of disinfectants to prevent and remove impure air is of the very first importance, and should be universal, especially at the present time. The expense of disinfectants is very slight, and within the reach of all. No one has, therefore, any right to poison his own family, or his neighbor's family, with the foul air of privy vaults, cesspools, or other deposits of filth, nor any excuse for doing it. At the present time diphtheria is very prevalent in the city, and is supposed to be caused, to a very great extent, by impure air, especially that from privy vaults and cesspools.

One of the cheapest and best disinfectants for vaults and drains is the following:—

1. Take five pounds of copperas (sulphate of iron), and dissolve it in three or four gallons (one pailful) of boiling water, mixing with it one pint of crude carbolic acid. Larger quantities in the same proportion. Hot water is necessary, because copperas will not dissolve readily in cold water.

This may be used freely in vaults or drains. A considerable quantity may be necessary at first, and it should be repeated every day or two, until all offensive odors are completely destroyed. Copperas, in quantities of five pounds or more, will cost three cents per pound, and the crude carbolic acid, containing thirty per cent. of the acid, will cost seventy-five cents per gallon.

2. Nitrate of lead, dissolved, one pound to one gallon of water, is an excellent disinfectant to pour into sink pipes and water closets. It is without odor, clean, and may be used freely wherever needed. The nitrate of lead will cost about twenty cents per pound.

3. Permanganate of potash is an excellent chemical disinfectant to purify cistern rain water that has become offensive. The quantity necessary can only be determined by trial. Dissolve a quarter of a pound of the crude or impure permanganate of potash in two or three quarts of water and pour it into the cistern, stirring it well from the bottom. If necessary repeat the dose. The impure permanganate of potash will cost about one dollar per pound.

4. Crude carbolic acid, largely diluted with water, makes a most valuable disinfectant to sprinkle in yards about privies, on heaps of filth, in filthy lanes, and especially upon offensive manure in stables. It will prevent offensive odors, and also drive away flies. The crude article, containing twenty-five to thirty per cent. of carbolic acid, will cost seventy-five cents per

gallon, and one gallon is sufficient to mix with one barrel of water, stirring it briskly when used.

5. Carbolate of lime is a valuable and safe disinfectant, and may be sprinkled freely in cellars, yards, on heaps of filth, and in any place where foul air is perceived. It will cost eight cents per pound in quantities of five pounds or more.

There are other disinfecting powders in market containing carbolic acid in finely powdered clay, or other materials, all of which are valuable, and in some cases the fine powder is preferable to the carbolate of lime.

6. Chloride of lime, dry, gives off chlorine gas, and acts instantly to remove offensive odors, and is often very valuable for this purpose on account of its speedy and diffusive action. But it soon absorbs moisture and loses its power. It will cost six cents per pound in quantities of five pounds or more.

7. Ventilation, and whitewashing with fresh lime, are the best disinfectants for cellars and damp places, and also let the free sunlight into such places, whenever it is possible.

Progressive Atrophy of the Pupilla of the Optic Nerve.

Galezowski (*Le Mouvement Médical*) mentions that this may be produced by diabetes, syphilis, or by the latter producing locomotor ataxy, and atrophy of the pupilla arising from that. It may be also produced by reflex action as a consequence of certain gastro-intestinal affections. In these cases the symptoms are improved by repeated emetics and tonic regimen.

Progressive atrophy of the pupilla may be also consequent on softening of the corpore geniculata, or of the cerebral peduncles, or of diffuse periencephalitis. Embolism of the arteria centralis and of the cranial vessels, fracture of the cranium in the periorbital region, or even a contusion of these parts, and even erysipelas of the face, may produce it. Finally, it may be the consequence of intoxication with alcohol or nicotine. It is most common among men. It is essentially progressive.

Treatment.—According to cause. If with ataxy, treat that by cauteries, dry cupping, and pills of nitrate of silver. If from diabetes treat it. If from syphilis, use continuous mercurial inunctions and saturate the system, simply watching the gums and disregarding salivation. As to iodide of potassium it will not give you any result.

Galezowski has tried local injections of strychnine without result.

An Excellent and Elegant Formula for Prescribing Gallic Acid.

The *Canada Medical Record* gives the following:—

℞. Acidi gallici ℈ij
Glycerinæ, ℥ij
Aquæ bullientis, ℥v M.

A tablespoonful *pro re nata.*

Reviews and Book Notices.

NOTES ON CURRENT MEDICAL LITERATURE.

——The value of the atomizer in diseases of the eye has been very ably set forth by Dr. M. Landesberg, of this city, in the October number of the *Monatsblatt für Augenheilkunde.* He finds it of decided use in keratitis, but in conjunctival irritation it is contra-indicated

——Address on Mental Disorders, delivered before the Medical Society of the State of Pennsylvania, at it annual session, held in Harrisburg, June, 1877, by John Curwen, M.D. Extracted from the Transactions.

——A paper on a peculiar type of Eruptive Mountains in Colorado, by A. C. Peale, M.D. Department of the Interior, United States Geological and Geographical Survey. Extracted from the Bulletin of the Survey, volume iii, No. 3.

——The Proceedings of the Medical Society of the County of Kings, December, 1877. Contents:—Open-air Treatment in Phthisis, H. B. White, M.D.; Nitrous Oxide in Minor Surgery, G. W. Brush, M.D.; A Dressing for Fractured Clavicle, G. Woekeshagen, M.D.; Chrysophanic Acid and Psoriasis, etc.

——Reports for 1875-76 of St. Mary's Hospital of Philadelphia, under the care of the Sisters of the Third Order of St. Francis.

——Third Annual Report of the Executive Committee of the Asylum at Walnut Hill, Hartford, Connecticut.

——Case of Molluscous Tumor of the Ear, complicated with Polypi and a Fistulous Opening behind the Auricle; communicating with the Internal Ear, and stretching up to a Cavity on the Temple, two inches above the Auricle, under the Muscular Structures. By J. J. Kirk Duncanson. Reprinted from the Edinburgh *Medical Journal* for November, 1877.

——"The Sanitary Condition of Portland.' A report presented to the Maine Medical Association, June 14th, 1877. By Frederic Henry Gerrish, M.D. Reprinted from the Proceedings of the Association.

BOOK NOTICES.

Lectures on Practical Surgery. By H. H. Toland, M.D., Professor of Surgery in the Medical Department of the University of California. With numerous Illustrations. Lindsay & Blakiston, Philadelphia.

The work is formed from the stenographic reports of oral lectures before the author's class, and for this reason, as we turn the pages, we meet with indications of a "talking" style, making, however, the book none the less attractive. The illustrations are very well chosen, are such as demonstrate more clearly the text, and not added simply to attract attention. The typographical work is neatly done, and the whole appearance of the book is excellent, such as we are accustomed to see from the well-known house of its publishers.

A Treatise on the Ear. For the use of Medical Students and Practitioners. By Charles H. Burnett, A.M., M.D., Aural Surgeon to the Presbyterian Hospital, etc. Henry C. Lea, Philadelphia.

Believing that the pathology and therapeutics of the ear cannot be properly understood without an intimate acquaintance with its anatomy and physiology, he has devoted more time than is usual in similar text books to the consideration of these subjects. Part First, Anatomy and Physiology, ends at the 162d page. Part Second considers Diseases and Treatment. Section first of the second part treats of examination of patients. This gives a full history of "instruments and methods of their employment," and of "sound, hearing, and tests of the latter."

Section second introduces the diseases and treatment of the ear. It treats of each part of the organ of hearing, beginning with the auricle, passing to external auditory canal, membrana tympani, middle ear and internal ear. The arrangement of the work is clear and convenient.

It would have been well if the author, in his historical statements of the perforation of the mastoid portion of the ear, had mentioned the three successful operations of this kind by his contemporary and fellow-townsman, one well known as an able aurist, Dr. L. Turnbull. In the MEDICAL AND SURGICAL REPORTER, February 1862, fifteen years ago, this gentleman reported three operations of this kind. From the tenor of this report we feel assured that Dr Turnbull is not to be classified among those who were not clear for what the operation was to be performed.

Hospitals; Their History, Organization and Construction. Boylston Prize Essay of Harvard University for 1876. By N. Gill Wylie, M.D. D. Appleton & Co., New York.

Chapter I considers the history of hospitals. Chapter II. The relations of hospitals to pauperism. Chapter III. Organization and management. Chapter IV. The construction of a civil hospital. Chapter V. Warming and ventilation. Chapter VI. Pay patients in charitable institutions. Chapter VII. Isolated huts for certain important cases. Chapter VIII. Arrangement of the buildings on the grounds. Chapter IX. Relations of the medical school and the training school for nurses to the hospital. Chapter X. Improvement of hospitals now in use; small hospitals; lying-in hospitals; insane asylums, etc. Chapter XI. Hospital buildings now in use. Five distinct types. 1. The old conglomerate. 2. The old block plan. 3. The corridor plan. 4. The pavilion system. 5. The one-story pavilion plan. The book contains also an appendix, being a review of five essays relating to the construction, organization and management of hospitals, contributed by their authors, for the use of the Johns Hopkins Hospital of Baltimore.

An Elementary Treatise on Practical Chemistry and Quantitative Organic Analysis. By Frank Clowes, D. Sc. London. With Illustrations. From the second English edition. Henry C. Lea, Philadelphia.

This work is especially adapted to students. "The language employed has been rendered simple and intelligible, by avoiding the unnecessary use of scientific terms, and by explaining or paraphrasing in ordinary words any such terms when introduced for the first time." The book is divided into seven sections. Section 1. deals with experiments illustrating the methods, preparation and properties of gases. Section 2. Preparation and use of apparatus required for chemical analysis. Section 3. Analytical operations; descriptions illustrated by experiments. Section 4. Analytical reactions. Section 5. Analysis of simple substances for one metal and one acid radicle. Section 6. Full analytical course and tables. Section 7. Apparatus and chemicals required for the preceding course. This is a neatly bound, well printed book, of 372 pages.

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PREMIUMS AND INDUCEMENTS.

From and after the first of October we are offering to all *new subscribers* the REPORTER for *fifteen* months (October 1, 1877, to January 1, 1879) for *five dollars*, one year's subscription price.

That our old subscribers may also receive an equally liberal offer, we make them the following proposition.—

Any old subscriber who will send us one new subscriber to the REPORTER, remitting ten dollars to cover the two subscriptions, will receive the Physician's Daily Pocket Record for 1878, or the Half-Yearly Compendium for 1878, *gratis*, as he may prefer.

Any old subscriber who will send us a new subscriber to both REPORTER and COMPENDIUM, remitting twelve dollars to cover both subscriptions, will receive a copy of either *Napheys' Medical Therapeutics, or Naphey's Surgical Therapeutics*, as he may prefer.

THE HIGHER MEDICAL EDUCATION.

We have delayed longer than was our intention, to notice the introductory address delivered by Dr. WILLIAM PEPPER at the opening of the present session of the University of Pennsylvania, in its Medical Department.

The subject of the address is, however, quite as timely now as it would have been earlier, and, indeed, is likely to be the order of the day in the medical circles of this country for some time to come. It was upon the higher medical education, as the true interest of the public and the profession.

The speaker arraigned with severity the existing state of things.

"I suppose," he said, "that few persons who are at all familiar with the subject would be willing to express even the smallest satisfaction with the present state of the medical profession in this country. It is true that for the past four years all branches of industry have been depressed, but the troubles that affect the medical profession have been steadily advancing and increasing for at least fifty years. Its ranks are overstocked to an unparalleled extent; there is, I believe, no other business in which so small a proportion of those engaged earn a living; it finds successful rivals among the practitioners of such exclusive schools as homœopathy, eclecticism and the like, which, by the concurrent voices of all intelligent communities, no less than by the verdict of scientific investigation, have been declared to be unworthy of confidence and incapable of endurance; and, worst of all, it has failed to elevate its standing and repute with the public, or to exert that powerful influence upon sanitary legislation, upon public and private hygiene, upon education, and upon similar subjects, which is at once its duty and its highest prerogative.

"It will not, I think, be gainsaid by any that the following points are in reality grave defects in the American system of medical education: 1. The absence of a preliminary examination. 2. The very short term of studies required. 3. The want of personal training in the practical branches. 4. The absence of any grading of the curriculum. 5. The examination of candidates for the degree by those having a direct pecuniary interest in their success."

The reforms suggested by the speaker were: The establishment of a preparatory examination; the lengthening of the period of collegiate studies to at least three full years; the careful grading of the courses; the introduction of ample practical instruction of each

student, both at the bedside and in the laboratories, and the establishment of fixed salaries for the professors, so that they may no longer have any pecuniary interest in the size of their classes.

Dr. PEPPER then gave a brief historical sketch of the efforts that had been made by various schools in this country to institute these reforms. He also predicted that those schools which had not yet adopted them would in time be forced by public opinion to do so, and that thus the higher education would become a fact.

Every intelligent man, in the profession or out of it, must assent to the general correctness of these views. But the difficulties in the way of realizing such hopes are much more formidable than might at first be imagined. A good preliminary education, three years in a school of medicine, and say one year in a hospital, would bring a young man to the age of twenty-four. He might as well count two more years before he could make an independent subsistence from his profession; and ten years from that time, when he is married and with a family, $3000 a year actual collected income from his visits will be a very fair measure of success. To obtain this he will have expended between his sixteenth and twenty-sixth year $6000 or $7000, of which $4000 or $5000 might have been saved by cutting off the extra education Dr. PEPPER demands. This simple calculation will influence American youth and American fathers for a long time to come. The saving is a false economy, but some are hard to persuade of this, and with many it is not an open question but a necessity.

Such serious difficulties should, however, act as stimulants to the profession to battle all the more vigorously for the improvements which all acknowledge would be desirable. While some of the reforms suggested will not meet general commendation, the spirit and aim of the address certainly will. The more constantly the public and the profession are reminded of the money value of knowledge, the more certain are they to seek it.

THE RELATION OF LITERATURE TO HEALTH.

Hygienic works do not, as a rule, consider the relation that literature bears to the health of the people. It is most certainly true that the influence of moral, ennobling reading is for the physical welfare of a person. The law recognizes the evil to morals, mind and body, of the coarsest, vilest literature, and such is suppressed. But the civilized world is flooded with reading of an evil, immoral, infidel, and pseudo-scientific character, whose tendencies, to say the least, are not elevating, and which, as a rule, reacts unfavorably, and even disastrously upon the body. Halton, of London, goes so far as to say that teaching the peasant lad and humble factory girl just sufficient reading to enable them to poison their minds, and deprave their hearts with the wretched immoral trash which is now everywhere sold, under the pretence of harmless light reading for the people, is doing incalculably more harm than leaving them in ignorance of letters altogether!

This smattering of knowledge is not education. This is a subject truly worthy of careful consideration by hygienists, nor is it beyond the scope of their science.

Hygiene does not simply supply a few rules of health, ventilation, exercise. It does not confine its investigations to disinfectants, and the plainly palpable causes of disease. Its studies are as broad and deep as can be engaged in by human mind. It must not stop on the surface of things, but must dig deep, developing all the relations of disease, scrutinizing every possible cause, caring for mind and for the soul, if for no higher purpose, to ward off the inevitable reaction upon the body that sooner or later will occur if the abuse of the higher faculties is continued.

At this time we wish to call attention to some facts which show us that the generally received notion that our prisons and workhouses are filled largely with those who are not able to read is incorrect. Acting upon Halton's suggestion, a correspondence was opened

with several institutions of this city and vicinity, in order to find out the degree of education attained by the inmates of the same. The result has been to demonstrate the London author's views, that our prisons, etc., are chiefly filled by those who can read, or read and write a little; in fact, being in great excess over both the well educated and the ignorant classes.

In the Allegheny County Workhouse none are reported as being well educated; 8071 that could read and write; 1784 that could read but not write; 1932 that could neither read nor write. This refers to the whole number of prisoners received since the organization of the workhouse, in 1869. From the tables submitted it will be seen the same results are obtained.

ALLEGHENY COUNTY WORKHOUSE, 1876.

Read and write	1171
Read, but not write	256
Neither read nor write	183

MAGDALEN ASYLUM, PHILADELPHIA.

Inmates who do *not* read	4
" do "	5
" read and write	11
Inmates further advanced	8

HOUSE OF CORRECTION, HOLMESBURG, PA.

Collegiate education	10
Read and write	5660
" " imperfectly	1171
Neither read nor write	1233

HOME FOR THE HOMELESS.

Neither read nor write	4
Read, but not write	4

ROSINE ASSOCIATION.

Read only	4
" and write	12
Further advanced	11

PHILADELPHIA COUNTY PRISON.

Inmates who read and write	375
" cannot read	28

Mind, morals and health are so closely bound together that an influence acting unfavorably upon one must degrade the remaining. Such a widespread moral contagium as improper reading is surely a factor of health deterioration worthy of consideration by every true hygienist.

Every practicing physician knows of some of the evils of trashy reading upon the excitable and nervous system of girls and young women, but the influence is far more widespread than this, and unless our press is purified it is hard to say where the reaction upon the physical nature of man will end.

Notes and Comments.

Davos as a Health Resort.

One of the most famous health resorts for consumptives is Davos, in Switzerland, 5120 feet above sea level. For a number of years we have been familiar with it from German books and medical journals, and last summer it was visited by the eminent English practitioner, Dr. T. Clifford Allbutt, who has written a very pleasant, instructive, and fair account of it. It is a very favorable report, based on his own observations, and his talks with the local physicians, Drs. Unger and Rüdi. We permit ourselves the following clipping:—

Dr. Unger has lived twelve years in Davos, was himself consumptive, and found his cure there. He may be called the discoverer of Davos; as I believe he and his friend, Herr Richter, of Basle, then phthisical like himself, were the first to settle there, for the purpose of cure. Herr Richter is now the bookseller of Davos, and is in sound health. It is curious to find that many of the foreign settlers in Davos are cured "poitrinaires." Herr Cöster, the stout-looking and energetic landlord of the Belvidere, found his cure at Davos, and so did several of his servants. I was at first sight struck by two things, chiefly: First, by the apparent absence of invalids; and, secondly, by the real absence of medical machinery. Knowing as I did that most of the visitors had come to Davos for their health's sake, and knowing but too well the aspect of the population of other well-known resorts for the phthisical, my first question was, Where are the patients? Around the table, with few exceptions, one saw ruddy faces, and heard cheerful voices, only muffled by the needs of vigorous appetites. Indeed, the patients ate so much it was difficult sometimes to secure a due share of good things for one's self. Yet when Dr. Rüdi sat next to me at dinner, on the following evening, he could tell me how this person had a

cavity at one apex and infiltration of the other; how a second had come to Davos apparently but to die; how a third had come with lungs breaking down, had been cured and had left Davos, but had again succumbed to renewed disease, and was now once more in the way of complete recovery; and so forth. Yet perhaps not one of these, unless of the quite new comers, was absent from the pleasure excursions of the day, or was leading the life of an invalid. Those who frequent "cure-places" abroad, or at home, for that matter, will best understand my surprise at the absence of pretentious cure systems, and of all the machinery of quackery. There is a mineral spring at Davos, but no one is ever asked to drink at the fountain; there are no mud-baths, no pine-baths, no elaborate regulation of food, or habits of life. Some use is made of the cold douche, but with this exception, the doctors seem to say to the patients: "It is the air which is to be your cure; you need some careful watching by us at first, but you need little or no medicine, and no laborious trifling with other means. Eat and drink pretty much what you like; beware of sudden changes of temperature, but live otherwise as much in the open air as you can.

Money Value of Lives.

Basing it upon the agricultural classes of Norfolk, Dr. Farr estimated that an infant at birth was worth twelve dollars and a half, in its prospective labor. Five years later his value as a productive agent was one hundred and thirty dollars, and five years later it has more than doubled. At the age of twenty-five he has attained the maximum value, six hundred and fifteen dollars a year. At fifty it is reduced down to three hundred and forty-five dollars, and so on down to seventy, when the value is only two dollars and a half a year. Should he live to eighty his value is one hundred and two dollars less than nothing.

The Plethysmograph.

M. Mosso, of Turin, has invented an instrument for observing the variations in the circulation of blood in the arms, under the influence of natural or artificial causes. The entrance of a person into the room causes a diminution of the forearm, which may vary between four and fifteen cubic centimeters, the blood quitting the arm and mounting to the head. Thought and cerebral activity seem to be in proportion to the contraction of the vessels of the forearm. During sleep, dreams cause a depression in the circulation of the arm. Just before waking there is a like depression. The experiments confirm the theory of Durham, Hammond, and Ehrmann, that the brain receives less blood during sleep than when awake.

Germs in Disease.

According to observations reported to the French Academy, MM. Pasteur and Joubert show that the terrible animal disease which is known as *charbon or sang de rate* (carbuncular gangrene), is caused by microscopic bacteridia, which were first observed by Dr. Davaigne, in 1850. It may, therefore, be classed with trichinosis and the itch, as a parasitic disorder. Vibrios, bacteria and bacteridia, are all found under two essentially distinct forms; either in translucent threads of variable length, multiplying rapidly by division, or in groups of little brilliant corpuscles formed in the interior of the threads, which separate from the parent, and constitute an apparently inert mass of points, from which countless legions of filiform individuals may come, having the same twofold methods of reproduction. The threads may be killed by drying, or by a heat much below that of boiling water. The germs, when dry, withstand temperatures from 120° to 130° C., or, 248° to 266° F.

Tænia Solium in a Child Two Years of Age.

Dr. D. W. Heisberg, of Nebraska City, writes to the *Medical Record*: "According to medical authorities, tænia occurs very infrequently in early life. Dr. J. Lewis Smith, who has had much experience, says, in his work on 'Diseases of Children,' that he has met but one case only under the age of five years. Others have occurred, but are quite rare. I have now in my possession a specimen of tænia solium recently expelled from a child about two years of age. One portion thereof was fifty-nine inches long at the time of expulsion. It was accompanied by forty-nine detached and separate segments. The whole length was estimated to be about eight feet. This was expelled after administering spts. terebinthinæ with ol. ricini. The tænia still remains, however, as segments have since been discharged. I reportthe case simply from the fact that it occurs so seldom at this youthful age."

CORRESPONDENCE.

Tumor of the Knee.

ED. MED. AND SURG. REPORTER:—

The case that I record is that of a Mexican lady of this city, of sanguineous temperament, but from long suffering greatly emaciated; 24 years of age, the mother of two children; has had constant treatment for the last year, and latterly under the care of a Dr. Schlamens, of San Antonio, Texas, who diagnosed it to be an aneurism of the popliteal artery, using compression for one month and constitutional treatment, but producing no relief; he then advised amputation, which was not consented to, and he abandoned the case as incurable.

When called to see the case, as a last resort, I found directly over the patella of the left knee an enormous tumor, its circumference 27½ inches, width 12 inches, inferior 15, superior 22 inches, and middle 24 inches, of a soft, spongy consistence, bluish color, free from pain and partially effaced, from constant pressure, with an enlargement of the neighboring veins, but in other respects the limb appeared to be perfectly sound, and upon consultation with several Mexican physicians, I diagnosed the case to be a venous cyst or tumor, and immediately introduced my exploring needle, which verified my diagnosis, and I proceeded at once with a small trocar to evacuate its contents, as also with an aspirator, revealing the pus to be deeply seated and consisting of organized coagula, differing in consistence and color, some being hard and pale, almost semi-fluid and dark. After evacuating thoroughly its contents, I proceeded to irrigate the wound with carbolized water, to wash out well its contents, and then ordered my assistant, a medical student, Manricio Garcia, to inject the parts with Lubeck's tincture of iodine, which naturally produced momentary pain, and then applied a strong bandage to sustain the parts, and the usual narcotics for repose. After the lapse of three days, I directed my assistant to unbandage the wound, and used chloral hydrate in the form of an injection. The next day, perceiving a threatening of erysipelatous inflammation, I ordered at once a dressing of an ounce of sulphurous acid, half an ounce of laudanum in ten of water, and with a syringe irrigated the parts perfectly. The acid in this case proved to be an excellent antiseptic, disinfectant and therapeutic agent, operating like a charm. My limited experience of the value of sulphurous acid in the treatment of wounds fully corroborates that of other practitioners, as it produced in this case the most marvelous results, so much so, that on the tenth day I was rewarded by partial adhesion having taken place, with a general healing of all its parts. I then placed my patient upon a tonic treatment, and now, the twenty-fourth day, I am pleased to record the most satisfactory results; the patient has now only a partial anchylosis, and moves alone.

No definite history could be procured respecting the cause of the tumor, only that it had been constantly growing for the last three years, and as no pain was felt it was completely disregarded. There being no hereditary, scrofulous or other diseases in the family, all otherwise extremely healthy, no fall, blow or accident having occurred, she being endowed with all the comforts of life, a lady of perfectly easy circumstances, no cause could be assigned for the same. J. H. MEARS, M.D.

Monterey, Mexico, October 1st, 1877.

Aspiration of the Perineum as a Means of Draining the Lower Part of the Pelvic Cavity.

ED. MED. AND SURG. REPORTER:—

Noticing the various procedures of meeting this difficulty, and the particular interest given it by the profession, I hope that a suggestion to this end may not be out of place. Among the various modes of draining the pelvic cavity, there seems to be none, as yet, that gives perfect satisfaction, none that affords entire safety to the patient, nor perfect evacuation of the pent-up fluid.

I think that a safe way of getting rid of the putrescent matter forming in this cavity, would be by aspiration through the perineum. As there would be no danger attending the operation, no danger of puncturing the peritoneum, and having the advantage of not being troubled with fecal matter, or secretions of the womb, as in case of making openings through the rectal or vaginal walls, and as the perineum is at the bottom of this cavity, forming its floor, we would have no gravity to contend with. Whenever it is necessary to give vent to fluids forming in the pelvis, it seems to me that aspiration through the perineum at various intervals would be less irritating than the continued presence of drainage tubes. Undoubtedly the safest place to evacuate the pelvic cavity is through the perineum.

JOHN M. WHITE, M. D.

Pleasant Ridge, Green Co., Alabama.

An Instance of Extreme Longevity.

ED. MED. AND SURG. REPORTER:—

Mrs. Elizabeth Allen died at her residence, in Charleston, R. I., on the 28th ultimo, at the extreme age of one hundred and five years five months and six days. She was probably the oldest person living in Rhode Island, if not in New England. She was the daughter of Jonathan Gates, of Voluntown, Connecticut, and was born June 22d, 1772. Her mind and memory remained undimmed until the last. She remembered the burning of New London by the British, 1781. She also remembered the birth of her brother, which occurred March 18, 1775. Thus the human mind spans the broad chasm of more than a hundred years. We doubt if another such instance of memory can be found on record. E. P. CLARK, M.D.

Hope Valley, R. I.

News and Miscellany.

Origin of Diphtheria.

Dr. E. M. Snow says, in his last report as Superintendent of Health, Providence, Rhode Island:—

The evidence constantly accumulates in this city, that diphtheria depends for its existence and prevalence upon foul air, arising from local conditions of filth. Though it is inoculable, and in that way contagious, and is, perhaps, to some extent, infectious, there is no evidence that, practically, the disease is propagated by inoculation or contagion or infection. We may expect that diphtheria will continue through the winter, though perhaps with less severity than during the last two months; but it will still continue to search out its victims among those whose constitutions are prepared for it, by breathing foul air and other depressing causes.

The necessity for disinfecting and removing offensive filth of every description, continues as imperative as ever. Too much care cannot be taken in this respect.

The deaths from diphtheria, in each month of the present year, have been as follows:—

January	14	July	9
February	13	August	12
March	20	September	39
April	18	October	48
May	31	November	37
June	21		
Total, 11 months			262

The disease will number nearly 300 victims in Providence, during the year 1877.

Circassian Surgery.

An English surgeon in the Turkish army writes this incident illustrating surgical knowledge among the Circassians:—"On passing the Circassian camp on my way home, I was hailed by an orderly of the Pacha, to know if I would kindly call and see a wounded officer. Of course I went, and found, among several others wounded, a very handsome young officer, with a bullet somewhere in the elbow. Attending upon him, I found a wild-looking old Circassian, who was sucking the wound, in the vain hope of thus extracting the bullet, the simplest and safest way, he assured me, of performing this operation. After this interesting experiment had been continued until the operator was thoroughly exhausted, and without, I regret to say, his labors being crowned with success, the mollah, or priest, was called in consultation; but by this time the Pacha, who was present, and who wished me to think him superior to the superstitions of his people, asked me to interfere. I did so, on the condition that I should have the officer removed to our ambulance, which that morning had come into existence, though in a very small way, it is true. To this he consented; and, after his arrival, I put him under chloroform, and found that a good deal of sucking or enchantment would have been required to extract the ball, which had entered the ulna, and carried before it a portion of the olecranon, which was wedged firmly, together with the bullet and fragments of clothing, between the split condyles of the humerus, right into the cancellous tissue. Having cleared out all the fragments of bone, I found that a sufficiently complete "resection" of the joint had been made without my further interference; and, under the nearest approach to antiseptic measures which I have at command, in this fresh healthy air, and with the robust constitution of the patient, I hope to save him a tolerably useful arm.

Traveling Casualties.

Some interesting statistics have been published by M. Gortiaux on the dangers of traveling by land. He states that in the old diligence days a man had one chance of being killed in 300,000 trips, and one chance of being injured in 30,000. On the railway between 1835 and 1855 there was one chance of being killed in 2,000,000 journeys, and one chance of being injured in 500,000. From 1855 to 1875 one chance of being killed in making 6,000,000 journeys, and one chance of being injured in 600,000. Now the chances of being killed are as one to 45,000,000, and of being injured, one to 1,000,000. Consequently, a person traveling ten hours a day, at the rate of forty miles an hour, would, in the first period, have had a chance of escaping destruction during 321 years; during the second period, during 1014 years; and between 1872 and 1875, during 7439 years.

Arsenic and Antimony in Vulcanized Rubber.

An article contained in No. 17 of the *Répertoire de Pharmacie*, by Mr. E. Filhol, again draws attention to the fact that much of the vulcanized rubber of the market, at least that made in Europe, contains arsenic, which may be readily extracted by means of hydrochloric acid. It may not be generally known that the golden sulphide of antimony is largely consumed for coloring vulcanized rubber. This is prepared specially for the purpose, both of a red and of an orange color, and preserves its tint even at a high temperature. Some time ago an inquiry was instituted whether dental vulcanite, colored by vermilion, was poisonous; and the result was that it was declared innocuous. It now remains to be seen whether any dental vulcanite is colored by antimony sulphide, and what constitutional effects it produces.

Foreign Universities.

Nature states that the lectures at the St. Petersburg Ladies' High Medical School reopened this year on October 13th. One hundred and eighteen students were admitted, though a far larger number of applicants passed

the examination. The number of the students admitted, however, was limited as above, because of want of room. A fifth class has now been added; and the students receive, after having finished the studies, the degree of surgeon. According to the same journal, the imperial authorities of Strasburg have finally decided upon extensive appropriations for the new buildings of the University. They will embrace edifices for lecture-rooms, chemical and physical laboratories, and chirurgical and psychiatric clinics. The new observatory will be completed next year, and the botanical gardens are rapidly being laid out. In 1882 the University expects to occupy its new buildings.

Personal.

—Dr. Isaac Winans, of New Brighton, Pa., brother of Dr. S. Winans, of Alleghany, died very suddenly at his home, recently, of softening of the brain. The deceased was in his 67th year, and had been practicing his profession in New Brighton since 1856, where also he had been an elder in the Presbyterian Church for over twenty years. He left a family of three sons, all of them in Kansas, and of five daughters.

—Dr. William H. Draper, a well-known New York physician, was married on December 5th, to Miss Ruth Dana, a daughter of Mr. Charles A. Dana, of the *Sun*, at Dosoris, near Glen Cove, L. I., the handsome country seat of Mr. Dana.

—Dr. W. J. Sawin, of Chicopee Falls, Minn., who was to have been installed one night last month as Eminent Commander of Springfield Commandery, Knights Templar, fell dead, of apoplexy, at the beginning of the meeting.

—Miss Ida Savory, an actress well known in the Eastern States, was married recently to Dr. R. H. Keep, of Brooklyn, N. Y., and will soon retire from the stage.

—Dr. J. Marion Sims has recently suffered a severe loss, in the death of a daughter, Mrs. Mary Gregory, of New York City. He is at present in Europe.

—Dr. J. Herbert Claiborne, well known as a practitioner and author, has been elected President of the Virginia State Medical Society.

—Dr. Edward Hammond Clarke, an eminent Boston physician, died a few days ago.

—Dr. Stokes, of Dublin, the distinguished physician, and Regius Professor of Physic in the University of Dublin, has, we regret to say, been stricken with apoplexy, and continues in a state which leaves little hope of restoration even to moderate health.

—Professor C. von Heine, of Prague, died of diphtheria in October. Professor von Heine was one of the foremost surgeons in Germany, and was, moreover, a man of such purity and amiability of character that his death will be widely felt and deplored.

Items.

—Providence, R. I., has had a genuine case of leprosy in a young French woman, who ran away from the village of Tracadie, in New Brunswick, where there is a colony of lepers, on the appearance of the disease in her, and has since worked as servant in various Providence families till the disease has reached a very advanced stage. Last week she was sent back to Tracadie.

—The *Clinic* says that the new Anatomical Theatre of the Moscow University was opened on October 9th. It is immediately connected with the hospital. It is well lighted, well ventilated, and its tables and floor are covered with zinc. Attached to it is a large furnace for the cremation of all bodies and parts of bodies not otherwise utilized.

—The Massachusetts Medical Society has offered a prize of two hundred dollars, to be awarded in April next, for an essay showing original or meritorious work within the two previous years.

—In the Supreme Court of Rhode Island, in a suit to recover damages for unskilled treatment in a hospital, the Judge charged the jury that the corporation was a charitable one, and therefore not liable to damages.

—Trichinosis has become excessively prevalent recently at Leipzic. All classes of the community, even the aristocracy, have been attacked by it, and at Stettin alone there were forty-one cases in one week.

—Amsterdam is, henceforth, the seat of academic teaching, a new university having been opened there on the 15th of October.

—An average day's work is equivalent to the lifting of 351 foot tons; a heavy labor is equal to 700 foot tons.

—The relative humidity of Philadelphia is 68.

QUERIES AND REPLIES.

Minnesota Sub.—You will find excellent directions for venesection in Heath's *Minor Surgery*, p. 111. The illustrations required prevent us quoting the extract.

Dr. J. H., of Ohio.—See the REPORTER, current vol., p. 398. There is no law that we know of, in any State, preventing a druggist from refilling a prescription as often as he chooses.

MARRIAGES.

ELLISON—MCCUISTION.—At Onion Creek, Texas, November 28th, 1877, by Rev. Andrew Renick, W. A. Ellison, M.D., and Miss Mary E. McCuistion.

HILL—PAINTER.—On Tuesday, November 6th, at St. Thomas' Church, Garrison Forest, by Rev. Wm. F. Lockwood, Dr. Charles G. Hill and Isabel S. Painter, daughter of Charles Painter.

MILLER—BIDDLE.—On the 9th instant, by the Rev. George Emlen Hare, D.D., Dr. Samuel M. Miller and Elizabeth R., daughter of Dr. John B. Biddle.